Importance of Increased Priority for Protection as Well as Cleanup

Present and past waste management practices and contamination problems have caused current public perceptions and private priorities to be focused on correction of ground water degradation rather than its prevention. The level of investment in prevention is disproportionately low in comparison to the investment in remedial activities.

Lack of Impact Evaluation

None of the programs studied by the committee was based on explicit evaluation of the health, environmental, economic, social, and political costs and benefits to society associated with the protection of ground water quality. In most cases the information necessary to make such evaluations is not readily available. However, experience with attempts to remedy contamination problems has indicated that lack of prevention is costly.

Lack of Scientific and Technological Information

More scientific and technological information is needed concerning the extent of ground water contamination, its effects on health, the environment, society, and the economy, and strategies and technologies to prevent it. Also, more information is needed on the effectiveness of various protection programs. There is a need for basic research in understanding processes, including those in the unsaturated zone. This is especially true in setting cleanup criteria for specific solutes.

Need for Expanded Federal Action

It is extremely inefficient for each state to fund all scientific data collection and research needed for effective ground water programs. The federal role appears to be inadequate in both magnitude and expertise in the following areas: (1) determination of the health effects of ground water contaminants and establishing drinking water standards; (2) research on source reduction, control methods, and contaminant transport; (3) technology transfer, and (4) exchange of information among states.

Need for Trained Personnel

There appears to be a shortage of appropriately experienced experts in a variety of disciplines in most of the state ground water protection programs reviewed. This also appears to be true in federal programs.